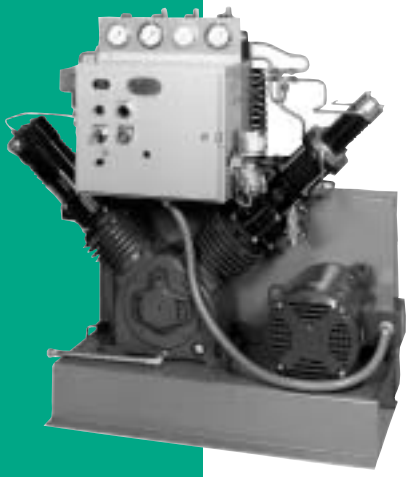
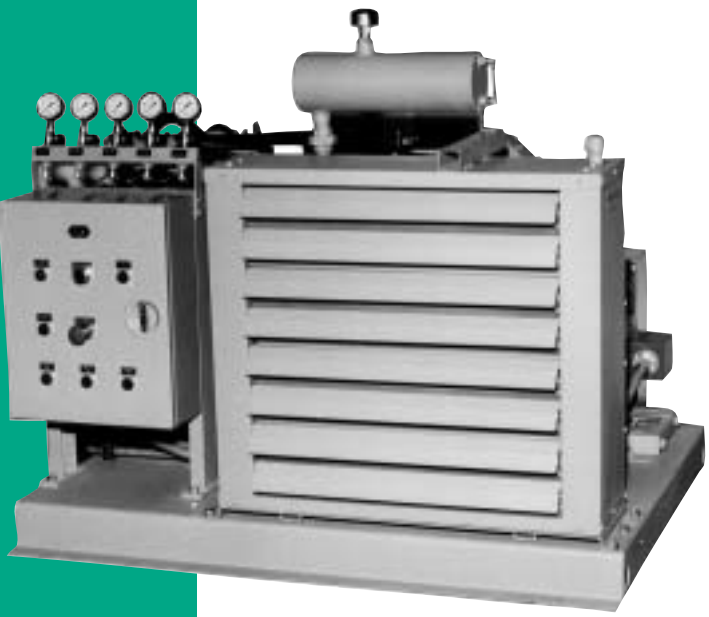
RIX INDUSTRIES





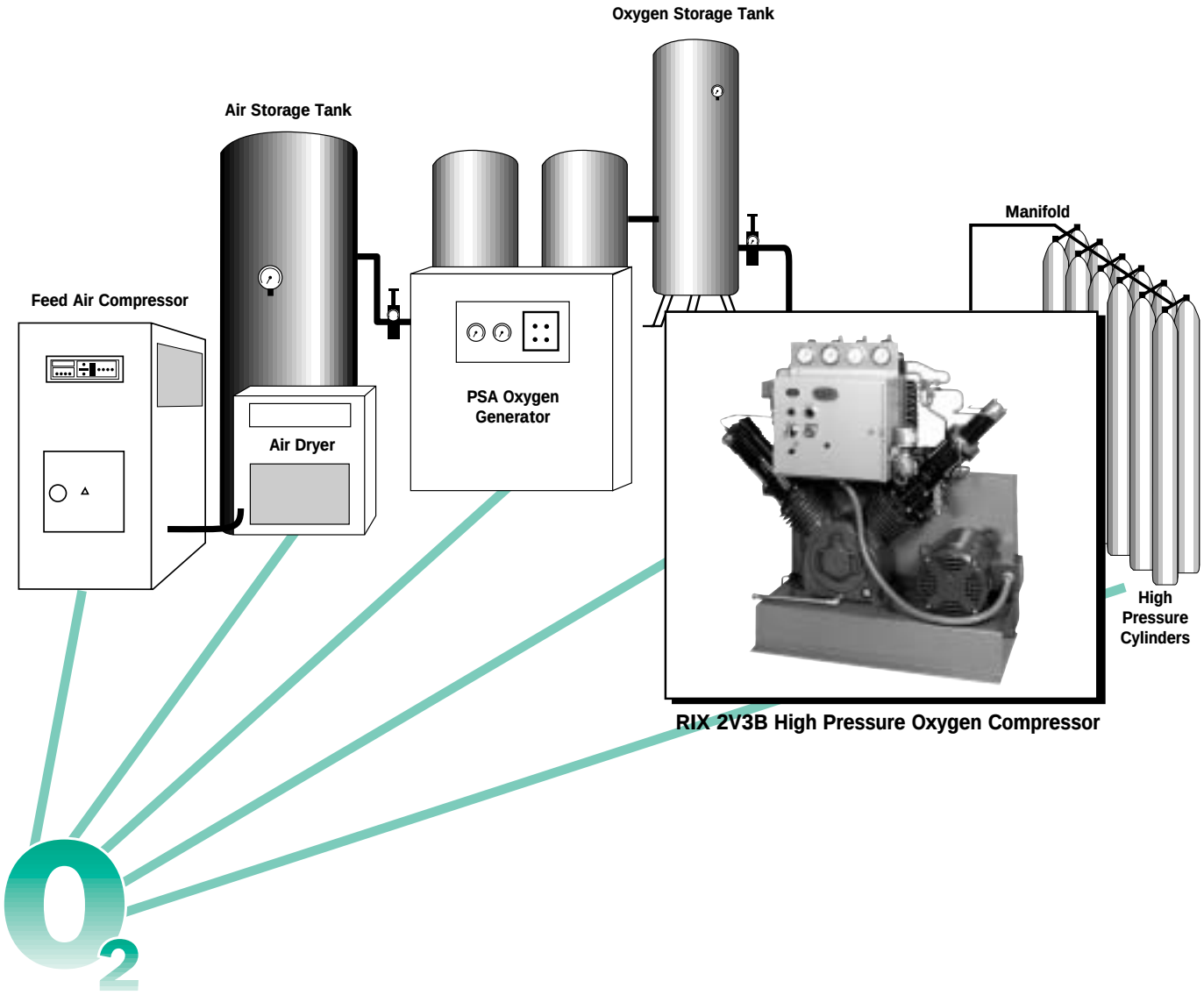
HIGH PRESSURE OXYGEN COMPRESSORS

For Cylinder Filling

RIX INDUSTRIES
4900 Industrial Way
Benicia, CA 94510 USA
Phone (707) 747-5900
FAX (707) 747-9200
Website: www.rixindustries.com
Email: info@rixindustries.com

RIX High Pressure Oxygen Compressors For Cylinder Filling

Phone (707) 747-5900 or FAX (707) 747-9200 to discuss your special needs.



OXYGEN GENERATION AND CYLINDER FILLING

Air is compressed by the **Feed Air Compressor**, passed through an **Air Dryer** and stored in the **Air Storage Tank**. Regulated air is then fed into the **PSA Oxygen Generator** where oxygen is generated (typically 92% to 95% O_2, or high purity oxygen to 99.5% O_2) and stored. From the **Oxygen Storage Tank** regulated oxygen is fed into the **RIX High Pressure Oxygen Compressor** where the oxygen is boosted to tank pressure and fed to the **Manifold** and into the **High Pressure Oxygen Cylinders**. The RIX Oxygen Compressor that is needed is determined by the capacity of the PSA Oxygen Generator based on the number of high pressure oxygen cylinders to be filled each day.

PRODUCION Y ENVASADO DE OXIGENO

Mediante un compresor, se comprime el aire, luego se seca y se almacena en un tanque para que luego de ser regulado es llevado al generador de oxígeno PSA donde se produce el oxígeno tipico (92% a 95%) o de alta pureza (99.5%) y luego almacenado en un tanque a baja presion y El Oxígeno regulado es llevado a un compresor de oxígeno RIX de alta presion y a traves de un manifold se llenan los cilindros a alta presion (2500 psi). La capacidad del compresor de oxígeno RIX sera determinada por la capacidad productiva del generador de oxígeno PSA, y basandose en el requerimiento diario de cilindros de oxígeno.

RIX High Pressure Oxygen Compressors For Cylinder Filling

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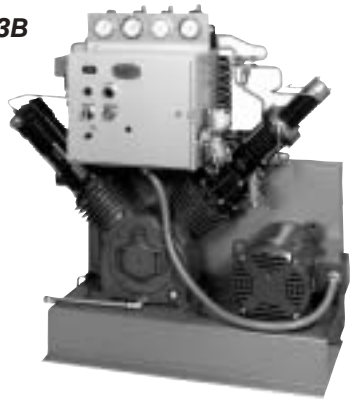
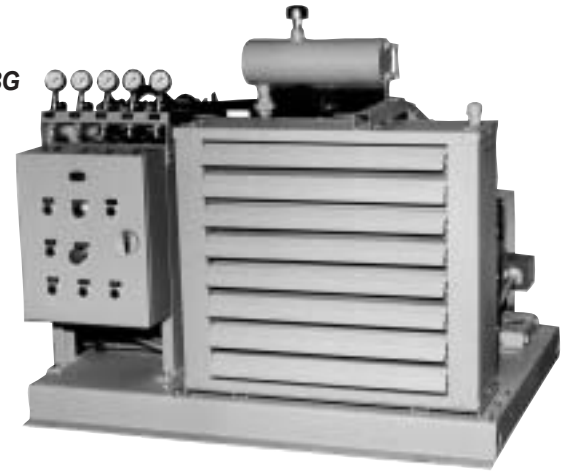
2PS2B

2V3B



4V4BG



	2PS2B	2V3B	4V4BG
Size, Compressor Pkg.	29"H x 23"L x 14"W (74Cm x 58Cm x 36Cm)	46"H x 49"L x 22"W (117Cm x 124Cm x 56Cm)	41"H x 61"L x 50"W (104Cm x 155Cm x 127Cm)
Weight, Compressor Pkg.	150 lbs. (68 Kg)	550 lbs. (250 Kg)	1650 lbs. (750 Kg)
Power, motor size	1.5 HP (1.1 Kw) 120 or 240 volts 50 or 60 Hz as required single phase	10 HP (7.5 Kw) 190 to 460 volts as required 50 or 60 Hz as required three phase	15 HP (11 Kw) 190 to 460 volts as required 50 or 60 Hz as required three phase
Compressor RPM	190 or 390 RPM	530 RPM	400–820 RPM
Suction Pressure	30 - 70 PSIG 2 - 5 BarG 2 - 5 Kg/cm^2 G	3 - 40 PSIG .2 - 2.8 BarG .2 - 2.8 Kg/cm^2 G	3 - 10 PSIG 0.2 - 0.69 BarG 0.21 - 0.70 Kg/cm^2 G
Max. Discharge pressure, O_2	2200 PSIG 152 BarG 155 Kg/cm^2 G	2500 PSIG 172 BarG 176 Kg/cm^2 G	3000 PSIG 207 BarG 211 Kg/cm^2 G
Flow Rate	30 - 120 SCFH .80 - 3.20 Nm^3/H 14 - 57 Nltr/M	225 - 600 SCFH 6 - 16 Nm^3/H 100 - 268 Nltr/M	600 - 1000 SCFH 16 - 27 Nm^3/H 268 - 446 Nltr/M
Cooling	air cooled	air cooled	Closed circuit water cooling with air/water heat exchanger.
Shipping weight	200 lbs. (91 Kg)	725 lbs. (330 Kg)	1840 lbs. (836 Kg)
Shipping volume	36"H x 30"L x 24"W (91Cm x 76Cm x 61Cm)	48"H x 57"L x 30"W (122Cm x 145Cm x 76Cm)	54"H x 76"L x 65"W (137Cm x 193Cm x 165Cm)
Gas inlet	1/4" FPT	3/4" FPT	3/4" FPT
Gas outlet	1/4" FPT	1/4" FPT	1/4" FPT

Calculations based on 60˚ F for SCF; 0˚ C for Nm^3.

WHY CHOOSE RIX OXYGEN COMPRESSORS?
Reliability, long service life, and safety.

RELIABILITY: Many of these machines have exceeded 5000 hours of dependable service before their first maintenance. With minimal service they continue to reliably fill high pressure oxygen cylinders.

LONG SERVICE LIFE: Operating up to 24 hours per day, these units have shown exceptional service giving years of duty between overhaul. Once serviced and put back on the job, these units continue to provide excellent dependable operation.

SAFETY: Excellent engineering, choice of materials and conservative design result in a safety record second to none. Hundreds of these machines are currently operating safely and dependably around the world under many different operating conditions.

POR QUE ESCOGER COMPRESORES DE OXIGENO RIX?
Confiabilidad, larga vida entre servicios, y seguridad.

CONFIABILIDAD: Muchas de estos compresores sobrepasan las 5,000 horas de trabajo eficiente antes de su primer servicio de mantenimiento y con este servicio mínimo seguirán llenando cilindros de oxígeno a alta presión.

LARGA VIDA: Estos equipos están diseñados para trabajar 24 horas diarias demostrando un trabajo ejemplar, dando años de operación después de un servicio completo.

SEGURIDAD: Un excelente diseño, materiales de primera y una garantía de operación se suman para dar como resultado una máxima seguridad de trabajo por encima de equipos similares. Cientos de máquinas están funcionando en todo el mundo en diferentes condiciones de trabajo.

RIX High Pressure Oxygen Compressors

For Cylinder Filling

Definitions

SCF: measured at 14.7 psia and 60˚F
SCF: Standard cubic feet
SCFM: Standard cubic feet per minute
SCFH: Standard cubic feet per hour
PSI: Pounds per square inch
PSIG: Pounds per square inch gauge
PSIA: Pounds per square inch absolute
ATM: One atmosphere: 14.7 PSI
Nm^3: Normal cubic meter
Nm^3/H: Normal cubic meters per hour
Bar: 14.504 PSI
Kg: Kilogram
Kg/cm^2: Kilogram per centimeter squared: 14.22 PSI
Kg/H: Kilogram per hour
KPA: KiloPascals: 0.145 PSI
MPA: MegaPascals: 145 PSI
STPD: Short Tons per (24 hr.) day
MTPD: Metric Tons per (24 hr.) day
HP: Horsepower
Kw: Kilowatt
M: Meter
Cm: Centimeter
NPT: National pipe thread
FPT: Female national pipe thread
MPT: Male national pipe thread

Flow Conversions (O_2)

Based on 60˚F for SCF, 0˚C for Nm^3, Nltr.

5 SCFM	x 60.0	=	300 SCFH
600 SCFH	÷ 60.0	=	10 SCFM
10 SCFM	x 1.607	=	16 Nm^3/H
200 SCFH	x 0.0267	=	5.3 Nm^3/H
30 SCFM	÷ 0.03732	=	804 Nltr/M
1000 SCFH	÷ 2.239	=	446 Nltr/M
25 SCFM	x 2.3	=	57.5 Kg/H
800 SCFH	x .0383	=	30.7 Kg/H
6 Nm^3/H	x .622	=	3.7 SCFM
12 Nm^3/H	x 37.32	=	448 SCFH
850 Nltr/M	x .03732	=	32 SCFM
400 Nltr/M	x 2.239	=	896 SCFH
20 Kg/H	x .435	=	8.7 SCFM
12 Kg/H	x 26.1	=	313 SCFH

Conversions

Horsepower to Kilowatt:	HP x .745 = Kw
Kilowatt to Horsepower:	Kw x 1.341= HP
Pounds to Kilogram:	Lbs. x .4536 = Kg
Kilogram to pounds:	Kg. x 2.205 = Lbs.
Quart to liter:	Qt. x .9463 = Ltr.
Liter to quart:	Ltr. x 1.057 - Qt.
Feet to Meter:	Ft. x 0.3048 = M
Meter to Feet:	M x 3.281 = Ft.
Inch to Centimeter:	In. x 2.540 = Cm
Centimeter to inch:	Cm x 0.3937 = In.

ATM x 14.7 = PSI	PSI ÷ 14.7 = ATM
BAR x 14.5 = PSI	PSI ÷ 14.5 = BAR
Kg/cm^2 x 14.22 = PSI	PSI ÷ 14.22 = Kg/cm^2
KPA x .145 = PSI	PSI ÷ .145 = KPA
MPA x 145 = PSI	PSI ÷ 145 = MPA

From value listed to SCFH (O_2)

Short Tons/Day x 988
Metric Tons/Day x 1090
Lbs./Hour x 11.86

From SCFH to value listed (O_2)

Short Tons/Day x .00101
Metric Tons/Day x .000918
Lbs./Hour x .0843

Gas Densities (lb/ft^3)

@ 14.7 PSIA, 60˚ F
O_2 = .0843
N_2 = .0738

Temperature Conversion

˚F	˚C	˚F	˚C
120	48.9	55	12.8
115	46.1	50	10.0
110	43.3	45	7.2
105	40.6	40	4.4
100	37.8	35	1.7
95	35.0	32	0.0
90	32.2	30	-1.1
85	29.4	25	-3.9
80	26.7	20	-6.7
75	23.9	15	-9.4
70	21.1	10	-12.2
65	18.3	5	-15.0
60	15.6	0	-17.8

About RIX Industries

RIX Industries is a major manufacturer of state-of-the-art gas compressors for industrial, scientific, and military use. Applications include virtually all types of gases including air, nitrogren, oxygen, argon, helium, hydrogen, ethylene, carbon dioxide, natural gas, and a variety of mixed gas combinations.

While specializing in oil-free high pressure compressors, the RIX product line also includes other types of compressors from 1/10 to 500 BHP. Both oil-free and oil-lubricated units with one to five stages and a choice of air or water cooling are offered for use over a wide range of operating conditions.

RIX Industries was founded in 1878 to supply equipment for the shipping and mining industries and has been in continuous operation on San Francisco Bay since that time. Manufacturing facilities are currently located in California and Sparks (Reno), Nevada, USA.

Sobre RIX Industries

RIX es el mayor fabricante de compresores de gases de tecnología de punta, para aplicaciones industriales, científicas y militares. Las aplicaciones son para casi todo tipo de gases incluyendo, aire, nitrógeno, oxígeno, argón, helio, hidrógeno, acetileno, dióxido de carbono, gas natural y la mezcla de los mismos.

Especializados en compresores de alta presión libre de aceite, RIX también produce dentro de esta línea compresores desde 1/10 a 500 BHP. Tanto los compresores lubricados como los no-lubricados son desde 1 hasta 5 etapas y pueden ser refrigerados por agua o aire dependiendo de la aplicación.

RIX fue fundada en 1878 para suministrar equipos para la minería y el transporte naval, continuando su línea productiva hasta la fecha en la bahía de San Francisco. Las plantas se encuentran localizadas en California y Sparks (Reno), Nevada, USA.

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